GenCore version 5.1.3

OM nucleic - nucleic search, using sw model

Run on: December 13, 2002, 15:41:52 ; Search time 268 Seconds
(without alignments)
1378.089 Million cell updates/sec

Title: US-09-659-737A-1
Perfect score: 164
Sequence: 1 gcaccgggacatcaaggcag.....tgcctggatggccccagaag 164

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 1.0

Searched: 2185239 seqs, 1125999159 residues

Total number of hits satisfying chosen parameters: 4370478

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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23: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2001B.DAT:*
24: /SIDS2/gcgdata/geneseq/geneseqn-embl/NA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	164	100.0	164	22	AAF30487	Human MLK4 partial
	2	152.8	93.2	2157	22	AAH46913	cDNA encoding huma
	3	152.8	93.2	3066	24	ABQ86165	Novel human gene.
	4	152.8	93.2	3111	24	ABN86357	Novel human protei
	5	152.8	93.2	3518	24	ABN86358	Novel human protei
	6	94.2	57.4	3141	22	AAD18824	Human kinase (PKIN
	7	94.2	57.4	3538	24	AAD34309	Human PKIN-12 cDNA
c	8	87	53.0	444	22	AAI85458	Human polynucleoti
	9	83	50.6	3558	24	ABK83874	Human cDNA differe
	10	83	50.6	3558	24	AAD36139	Human mitogen acti
	11	73.4	44.8	3454	24	ABL70018	Pancreas cancer re
	12	72.4	44.1	7084	22	ABA17177	Human nervous syst
	13	72.4	44.1	7084	22	AAK73916	Human immune/haema
	14	72	43.9	404	14	AAQ49755	pTK gene LpTK4 par
	15	72	43.9	404	16	AAT03098	Protein tyrosine-k
	16	62	37.8	137	14	AAQ49751	pTK gene LpTK4 par
	17	62	37.8	137	16	AAT03094	Protein tyrosine-k
	18	57.4	35.0	3072	23	ABL04365	Drosophila melanog
c	19	57.4	35.0	6721	23	ABL04364	Drosophila melanog
	20	33.2	20.2	3365	24	ABK84203	Human cDNA differe
	21	33.2	20.2	3389	16	AAT01031	Human leucine zipp
	22	33.2	20.2	3389	18	AAT89349	Human leucine-zipp
c	23	33	20.1	169	21	AAA45132	Human secreted exp
	24	32.2	19.6	3427	24	ABI99250	Mouse ischaemic co
	25	32	19.5	1008	20	AAX07105	Staphylococcus aur
	26	32	19.5	1008	23	AAS54418	Staphylococcus aur
	27	32	19.5	3647	18	AAV74332	Staphylococcus aur
	28	31.4	19.1	604	22	AAS35634	Human cardiovascul
c	29	31.4	19.1	7116	23	ABL03328	Drosophila melanog
c	30	31	18.9	751	14	AAQ43394	p15044 BglII-NotI
	31	31	18.9	3109	23	ABL29755	Drosophila melanog
c	32	31	18.9	12049	23	ABL29754	Drosophila melano
	33	30.8	18.8	2169	24	ABK84377	Human cDNA diffe
c	34	30.6	18.7	2161	22	ABA08608	Human secreted p
c	35	30.6	18.7	5073	21	AAA09254	Human alpha-2-delt
c	36	30.6	18.7	5557	22	AAS35973	Human cardiovascul
c	37	30.6	18.7	5557	22	AAS36752	Human cardiovascul
c	38	30.6	18.7	5557	22	AAK73043	Human immune/haema
c	39	30.6	18.7	5713	21	AAA09278	Human alpha-2-delt
	40	30.6	18.7	465237	24	ABQ87681	Human oestrogen re
	41	30.6	18.7	465237	24	ABA90193	Human oestrogen re
	42	30.4	18.5	1540	24	ABK83582	Human cDNA differe
	43	30.4	18.5	1597	21	AAZ46156	cDNA sequence enco
	44	30.4	18.5	10378	23	ABK43051	Genomic sequence #
c	45	30.2	18.4	1542	22	AAH16949	Human cDNA sequenc

ALIGNMENTS

RESULT 1
AAF30487
ID AAF30487 standard; cDNA; 164 BP.
XX
AC AAF30487;
XX
DT 29-MAY-2001 (first entry)
XX
DE Human MLK4 partial cDNA.
XX
KW MLK4; human; c-Jun N-terminal kinase kinase kinase; JNKKK;
KW protein kinase; ultraviolet radiation; skin damage; inflammation;
KW psoriasis; radioprotective; antiinflammatory; antipsoriatic;
KW vulnerary; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 2..163
FT /*tag= a
FT /partial
XX
PN EP1085093-A2.
XX
PD 21-MAR-2001.
XX
PF 12-SEP-2000; 2000EP-0307866.
XX
PR 20-SEP-1999; 99US-0155029.
XX
PA (UYNY) UNIV NEW YORK STATE.
XX

PI Blumenberg M, Gazel AM;
XX
DR WPI; 2001-236883/25.
DR P-PSDB; AAB20333.
XX
PT New polynucleotides encoding c-Jun N-terminal kinase kinase kinases
PT i.e. MLK4, PAK4, associated with skin damage for use in drug screening
PT and development -
XX
PS Claim 3; Page 22; 51pp; English.
XX
CC The present sequence is that of a partial cDNA encoding MLK4 (see
CC AAB20333), 1 of 4 novel c-Jun N-terminal kinase kinase kinases
CC (JNKKK) of the invention. cDNAs encoding JNKKKs were isolated from
CC human foreskin epidermal keratinocyte cDNA by PCR amplification
CC using primers (see AAB30494-97) based on regions of homology
CC between the kinase domains of JNKKs or JNKKKs. MLK4 was 50-78%
CC identical to members of the MLK family of JNKKKs. The MLK4 gene is
CC expressed in keratinocytes, kidney and pancreas, but not in brain,
CC placenta, lung, liver or skeletal muscle. The transcript size is
CC 4.8 kb. MLK4, PAK4, PAK5 and YSK2 polynucleotides and their gene
CC products are useful for elucidation of the components involved in
CC the cellular response to ultraviolet radiation. They can be used
CC in drug discovery, by screening for compounds that affect the
CC activity of a JNKKK or which affect the expression of a gene
CC encoding a JNKKK. Particularly useful are drugs that reduce UV
CC light-induced damage of the skin, inflammation and psoriasis, and
CC drugs that enhance wound healing.
XX
SQ Sequence 164 BP; 55 A; 33 C; 44 G; 32 T; 0 other;

Query Match 100.0%; Score 164; DB 22; Length 164;
Best Local Similarity 100.0%; Pred. No. 1.9e-45;
Matches 164; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db       1 GCACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACAT 60

Qy      61 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      61 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 120

Qy     121 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           |||||||||||||||||||||||||||||||||||||||||||||
Db     121 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
```

RESULT 2
AAH46913
ID AAH46913 standard; cDNA; 2157 BP.
XX
AC AAH46913;
XX
DT 25-SEP-2001 (first entry)
XX
DE cDNA encoding human protein kinase SGK067.
XX
KW Protein kinase; enzyme; cytostatic; nootropic; neuroprotective; human;
KW antiparkinsonian; virucide; antibacterial; antifungal; antimigraine;
KW analgesic; hypotensive; hypertensive; immunosuppressive; antiallergic;
KW antipsoriatic; antirheumatic; antiarthritic; ophthalmological; anorectic;
KW osteopathic; thrombolytic; antiarteriosclerotic; antiasthmatic;
KW vasotropic; antidiabetic; gene therapy; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 1..2157
FT /*tag= a
XX
PN WO200155356-A2.
XX
PD 02-AUG-2001.
XX
PF 25-JAN-2001; 2001WO-US02337.
XX
PR 25-JAN-2000; 2000US-0178078.
PR 31-JAN-2000; 2000US-0179364.
PR 17-FEB-2000; 2000US-0183173.
PR 17-MAR-2000; 2000US-0190162.
PR 29-MAR-2000; 2000US-0193404.
PR 13-NOV-2000; 2000US-0247013.
XX
PA (SUGE-) SUGEN INC.
XX
PI Plowman G, Whyte D, Manning G, Sudarsanam S, Martinez R;
XX
DR WPI; 2001-476202/51.
DR P-PSDB; AAB85513.
XX
PT Kinase polypeptides useful for treating cancers, Alzheimer's disease,
PT viral infections, diabetes, obesity, organ transplant rejection and
PT rheumatoid arthritis -
XX
PS Example 1; Page 209-210; 218pp; English.
XX
CC The invention provides human protein kinases and protein kinase-like
CC enzymes and polynucleotides encoding the polypeptides. The kinase
CC polypeptides and their modulators are useful for treating a disease or
CC disorder such as cancer, immune-related diseases, cardiovascular disease,
CC brain or neuronal-associated disease and metabolic disorders, including
CC cancers of tissues, cancers of hematopoietic origin, diseases of the
CC central nervous system, diseases of the peripheral nervous system,
CC Alzheimer's disease, Parkinson's disease, multiple sclerosis, amyotrophic
CC lateral sclerosis, viral infections, infections caused by prions,
CC bacteria and fungi, ocular diseases, migraines, pain, sexual dysfunction,
CC mood disorders, attention disorders, cognition disorders, hypotension,
CC hypertension, psychotic disorders, neurological disorders, dyskinesias,
CC metabolic disorders, and organ transplant rejection. They are also useful
CC for treating rhinitis, autoimmunity, atherosclerosis, psoriasis,
CC osteoarthritis, asthma, chronic inflammatory pelvic disease, chronic
CC inflammatory bowel disease, rheumatoid arthritis, metabolic disorders
CC such as diabetes, obesity, cardiovascular diseases such as reperfusion
CC injury, coronary thrombosis, clotting disorders and atherosclerosis,
CC ocular diseases such as glaucoma, retinopathy and macular degeneration,
CC psychiatric and neurological disorders such as anxiety, schizophrenia,
CC dementia, manic depression, etc. The polynucleotides are useful in gene
CC therapy techniques to treat the above mentioned disorders. Sequences
CC AAH46891-46922 represent human protein kinases encoding cDNA molecules.
XX
SQ Sequence 2157 BP; 514 A; 611 C; 638 G; 394 T; 0 other;

Query Match 93.2%; Score 152.8; DB 22; Length 2157;
Best Local Similarity 95.7%; Pred. No. 3.5e-41;
Matches 157; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

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Qy       1 GCACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACAT 60
           |||||||||| ||||| |  | || ||||||||||||||||||||||||||||||||||||
Db     780 GCACCGGGACCTCAAGTCCAGCAACATTTTGCTACTTGAGAAGATAGAACATGATGACAT 839

Qy      61 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     840 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 899

Qy     121 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           |||||||||||||||||||||||||||||||||||| ||||
Db     900 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCCGAAG 943
```

RESULT 3
ABQ86165
ID ABQ86165 standard; DNA; 3066 BP.
XX
AC ABQ86165;
XX

DT 10-SEP-2002 (first entry)
XX
DE Novel human gene. SEQ ID 36.
XX
KW Human; cytostatic; vulnerary; antiarteriosclerotic; antiparkinsonian;
KW nootropic; neuroprotective; immunosuppressive; haemostatic;
KW antiinflammatory; cardiant; antiulcer; virucide; antithyroid;
KW cerebroprotective; anorectic; metabolic; vaccine; cancer; infection;
KW wound healing disorders; atherosclerosis; Parkinson's disease;
KW Alzheimer's disease; autoimmune disorder; haematopoietic disorder;
KW inflammation; neoplastic disease; nervous system disorder;
KW cardiovascular disorders; pancreatitis; respiratory disorder;
KW hyperproliferation; systemic autoimmune disease; hyper-immunity;
KW developmental abnormality; gastrointestinal ulceration; neuropathy;
KW haematological disease; metabolic disease; sperm dysfunction;
KW thyroid disorder; hypothyroidism; brain damage; colitis;
KW cone photo- transduction deficiency; neurological disease; stroke;
KW angiogenesis; ovulation disorder; spinal cord; thyroid gland; heart;
KW trachea; thymus; lymph node; muscular system; obesity; anorexia;
KW growth abnormality; precocious puberty; gene; ss.
XX
OS Homo sapiens.
XX
PN WO200250105-A1.
XX
PD 27-JUN-2002.
XX
PF 17-DEC-2001; 2001WO-US49232.
XX
PR 19-DEC-2000; 2000US-256710P.
PR 20-DEC-2000; 2000US-257048P.
PR 09-JAN-2001; 2001US-260482P.
PR 30-JAN-2001; 2001US-264922P.
PR 06-FEB-2001; 2001US-266797P.
PR 19-MAR-2001; 2001US-276988P.
PR 04-APR-2001; 2001US-281535P.
PR 08-MAY-2001; 2001US-289622P.
XX
PA (SMIK) SMITHKLINE BEECHAM CORP.
PA (SMIK) SMITHKLINE BEECHAM PLC.
PA (GLAX) GLAXO GROUP LTD.
XX
PI Agarwal P, Birkeland M, Cogswell JP, Kabnick KF, Lai Y;
PI Martensen SA, Rizvi SK, Smith RF, Strum JC, Xie Q;
XX
DR WPI; 2002-508784/54.
DR P-PSDB; ABP61000.
XX
PT Secreted proteins and polynucleotides useful as vaccines for preventing
PT or treating various diseases e.g. cancer, wounds, atherosclerosis,
PT Parkinson's disease, Alzheimer's disease, infection, autoimmune
PT disorder -
XX
PS Claim 2(a); Page 249; 335pp; English.
XX
CC The invention relates to an isolated polypeptide with signal sequences
CC which allow it to be secreted extracellularly or membrane associated.
CC The activity of polypeptides of the invention may be described as,
CC cytostatic, vulnerary, antiarteriosclerotic, antiparkinsonian, nootropic,
CC neuroprotective, immunosuppressive, haemostatic, antiinflammatory,
CC cardiant, antiulcer, virucide, antithyroid, cerebroprotective, anorectic,
CC and metabolic. Polypeptides and polynucleotides of the invention are
CC useful in the treatment, or as a vaccine in the prevention of, cancer,
CC wound healing disorders, infection, atherosclerosis, Parkinson's disease
CC and Alzheimer's disease, autoimmune disorder, haematopoietic disorder,
CC inflammation, neoplastic diseases, nervous system related disorders and
CC cardiovascular disorders, pancreatitis, respiratory disorder,
CC hyperproliferation, systemic autoimmune disease, hyper-immunity,
CC developmental abnormality, gastrointestinal ulceration, neuropathy,
CC haematological diseases, metabolic diseases, sperm dysfunction, thyroid
CC disorders e.g. hypothyroidism, brain damages, colitis, cone photo-
CC transduction deficiency, neurological diseases, stroke, angiogenesis,
CC ovulation disorders, diseases in the spinal cord, thyroid gland, heart,
CC trachea, thymus, lymph node and muscular system, obesity, anorexia,
CC growth abnormalities, and alleviation of precocious puberty. The
CC sequences given in records ABQ86130-ABQ86184 represent novel human cDNA's
CC of the invention.
XX
SQ Sequence 3066 BP; 738 A; 881 C; 852 G; 595 T; 0 other;

Query Match 93.2%; Score 152.8; DB 24; Length 3066;
Best Local Similarity 95.7%; Pred. No. 4e-41;
Matches 157; Conservative 0; Mismatches 7; Indels 0; Gaps 0;

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Qy       1 GCACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACAT 60
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Db     735 GCACCGGGACCTCAAGTCCAGCAACATTTTGCTACTTGAGAAGATAGAACATGATGACAT 794

Qy      61 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 120
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     795 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 854

Qy     121 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           |||||||||||||||||||||||||||||||||||| ||||
Db     855 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCCGAAG 898
```

RESULT 4
ABN86357
ID ABN86357 standard; DNA; 3111 BP.
XX
AC ABN86357;
XX
DT 08-OCT-2002 (first entry)
XX
DE Novel human protein (NHP) kinase coding sequence.
XX
KW Novel human protein; NHP; kinase; human; gene; ds.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 1..3111
FT /*tag= a
FT /transl_except= (pos: 2773..2775, aa: Xaa)
FT /product= "NHP kinase"
FT /note= "Xaa can be any amino acid"
XX
PN WO200255685-A2.
XX
PD 18-JUL-2002.
XX
PF 10-DEC-2001; 2001WO-US47606.
XX
PR 11-DEC-2000; 2000US-254744P.
XX
PA (LEXI-) LEXICON GENETICS INC.
XX
PI Hu Y, Kieke JA, Donoho G;
XX
DR WPI; 2002-566739/60.
DR P-PSDB; ABB80923.
XX
PT Novel human kinase polynucleotide encoding a protein that shares
PT structural similarity with animal kinases for therapeutic, diagnostic
PT and pharmacogenomic applications -
XX
PS Claim 1; Page 36-37; 41pp; English.
XX
CC The invention relates to a novel human protein (NHP), kinase that shares
CC structural similarity with animal kinases. The kinase polynucleotides are
CC useful in therapeutic, diagnostic and pharmacogenomic applications and
CC for identifying compounds that modulate, i.e. act as agonists or
CC antagonists of the gene expression or gene product activity. The present
CC sequence represents the NHP kinase coding sequence.
XX

```
SQ   Sequence 3111 BP; 740 A; 905 C; 864 G; 594 T; 8 other;

  Query Match           93.2%;  Score 152.8;  DB 24;  Length 3111;
  Best Local Similarity   95.7%;  Pred. No. 4.1e-41;
  Matches  157;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy      1 GCACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACAT 60
          |||||||||| ||||| |  | || ||||||||||||||||||||||||||||||||||
Db    780 GCACCGGGACCTCAAGTCCAGCAACATTTTGCTACTTGAGAAGATAGAACATGATGACAT 839

Qy     61 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    840 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 899

Qy    121 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
          |||||||||||||||||||||||||||||||||||| ||||
Db    900 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCCGAAG 943


RESULT 5
ABN86358
ID   ABN86358 standard; DNA; 3518 BP.
XX
AC   ABN86358;
XX
DT   08-OCT-2002  (first entry)
XX
DE   Novel human protein (NHP) kinase encoding DNA.
XX
KW   Novel human protein; NHP; kinase; human; gene; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             264..3374
FT                   /*tag=  a
FT                   /product= "kinase"
FT                   /note= "NHP"
XX
PN   WO200255685-A2.
XX
PD   18-JUL-2002.
XX
PF   10-DEC-2001; 2001WO-US47606.
XX
PR   11-DEC-2000; 2000US-254744P.
XX
PA   (LEXI-) LEXICON GENETICS INC.
XX
PI   Hu Y,  Kieke JA,  Donoho G;
XX
DR   WPI; 2002-566739/60.
DR   P-PSDB; ABB80923.
XX
PT   Novel human kinase polynucleotide encoding a protein that shares
PT   structural similarity with animal kinases for therapeutic, diagnostic
PT   and pharmacogenomic applications -
XX
PS   Disclosure; Page 39-41; 41pp; English.
XX
CC   The invention relates to a novel human protein (NHP), kinase that shares
CC   structural similarity with animal kinases. The kinase polynucleotides are
CC   useful in therapeutic, diagnostic and pharmacogenomic applications and
CC   for identifying compounds that modulate, i.e. act as agonists or
CC   antagonists of the gene expression or gene product activity. The present
CC   sequence represents the NHP kinase encoding DNA.
XX
SQ   Sequence 3518 BP; 811 A; 1043 C; 976 G; 680 T; 8 other;

  Query Match           93.2%;  Score 152.8;  DB 24;  Length 3518;
  Best Local Similarity   95.7%;  Pred. No. 4.3e-41;
  Matches  157;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy      1 GCACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACAT 60
          |||||||||| ||||| |  | || ||||||||||||||||||||||||||||||||||
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Qy     61 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 120
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1103 CTGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCAC 1162

Qy    121 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
          |||||||||||||||||||||||||||||||||||| ||||
Db   1163 CAAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCCGAAG 1206


RESULT 6
AAD18824
ID   AAD18824 standard; cDNA; 3141 BP.
XX
AC   AAD18824;
XX
DT   18-DEC-2001  (first entry)
XX
DE   Human kinase (PKIN)-9 cDNA.
XX
KW   Human kinase; PKIN; gene therapy; adenocarcinoma; immune disorder; gout;
KW   cancer; allergy; sarcoma; leukaemia; acquired immune deficiency syndrome;
KW   AIDS; Addison's disease; microbial infection; inflammation; osteoporosis;
KW   atherosclerosis; cardiovascular disease; myocardial infarction; anaemia;
KW   myasthenia gravis; cirrhosis; cataract; growth and development disorder;
KW   seizure disorder; pulmonary embolism; Gaucher's disease; lipid disorder;
KW   lipid storage disease; Pick's disease; Tay-Sachs disease; renal disease;
KW   obesity; restorative therapy; immunomodulatory; vaccine; cardiovascular;
KW   antimicrobial; cytostatic; antiinflammatory; asthma; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             1..3141
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FT                   /product= "Human PKIN-9 protein"
XX
PN   WO200181555-A2.
XX
PD   01-NOV-2001.
XX
PF   20-APR-2001; 2001WO-US12992.
XX
PR   20-APR-2000; 2000US-199021P.
PR   28-APR-2000; 2000US-200226P.
PR   05-MAY-2000; 2000US-202339P.
PR   11-MAY-2000; 2000US-203505P.
PR   18-MAY-2000; 2000US-205564P.
PR   26-MAY-2000; 2000US-207739P.
PR   01-JUN-2000; 2000US-208795P.
XX
PA   (INCY-) INCYTE GENOMICS INC.
XX
PI   Yue H,  Gandhi AR,  Tribouley CM,  Kearney L,  Griffin JA,  Nguyen DB;
PI   Bandman O,  Lu DAM,  Lal P,  Burford N,  Khan FA,  Walia NK,  Yao MG;
PI   Patterson C,  Burrill JD,  Marcus GA,  Zingler KA,  Recipon SA,  Lu Y;
PI   Policky JL,  Thornton M,  Tang YT,  Hafalia A,  Elliott VS,  Baughn MR;
PI   Walsh RT,  Ramkumar J,  Borowsky ML,  Au-young J,  Hillman JL;
PI   Gururajan R;
XX
DR   WPI; 2001-611740/70.
DR   P-PSDB; AAE11775.
XX
PT   Human kinases and nucleic acids, useful for preventing diagnosing and
PT   treating cancers, inflammation and immune disorders -
XX
PS   Claim 5; Page 157-158; 166pp; English.
XX
CC   The present invention relates to human kinases (PKIN) and the nucleic
CC   acids encoding them. PKIN is used as vaccine and in gene therapy. PKIN is
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```
CC   used in the prevention, diagnosis and treatment of diseases cancers,
CC   adenocarcinoma, leukaemia, sarcoma, immune disorder, Addison's disease,
CC   acquired immune deficiency syndrome (AIDS), anaemia, asthma, allergies,
CC   gout, microbial infections, cardiovascular disease and/or inflammation,
CC   myasthenia gravis, atherosclerosis, cirrhosis, osteoporosis, myocardial
CC   infarction, cataract, growth and development disorder, seizure disorder,
CC   pulmonary embolism, Gaucher's disease, lipid disorder, lipid storage
CC   disease, Pick's disease, Tay-Sachs disease, renal disease and obesity.
CC   PKIN may be used to treat disorders associated with decreased PKIN
CC   expression by rectifying mutations or deletions in a patient's genome
CC   that affect the activity of PKIN by expressing inactive proteins or to
CC   supplement the patients own production of PKIN. PKIN nucleic acids may be
CC   used to produce the PKIN polypeptide, by inserting the nucleic acids into
CC   a host cell and culturing the cell to express the protein. PKIN nucleic
CC   acid and its complementary sequences may also be used as DNA probes in
CC   diagnostic assays to detect and quantitate the presence of similar
CC   nucleic acid sequences in samples and therefore which patients may be
CC   in need of restorative therapy. The present sequence is human PKIN-9
CC   cDNA.
XX
SQ   Sequence 3141 BP; 685 A; 941 C; 942 G; 573 T; 0 other;

  Query Match             57.4%;  Score 94.2;  DB 22;  Length 3141;
  Best Local Similarity   73.6%;  Pred. No. 2.3e-21;
  Matches  120;  Conservative    0;  Mismatches   43;  Indels    0;  Gaps    0;

Qy       2 CACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACATC 61
           ||||| ||| | ||| |  | || || ||| | ||  ||||| | ||  ||| |||  |
Db     766 CACCGCGACCTTAAGTCCAGCAACATATTGATCCTCCAGAAGGTGGAGAATGGAGACCTG 825

Qy      62 TGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCACC 121
            |||| || | | ||||||| || ||||||||  ||||  ||||||||||| | ||||||
Db     826 AGCAACAAGATTCTGAAGATCACTGATTTTGGCCTGGCTCGGGAATGGCACCGAACCACC 885

Qy     122 AAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           || |||||  | ||||| || ||||| |||||||| || ||||
Db     886 AAGATGAGTGCGGCAGGGACGTATGCTTGGATGGCACCCGAAG 928


RESULT 7
AAD34309
ID   AAD34309 standard; cDNA; 3538 BP.
XX
AC   AAD34309;
XX
DT   16-JUL-2002  (first entry)
XX
DE   Human PKIN-12 cDNA.
XX
KW   Human; kinase; enzyme; PKIN-12 protein; immune system disorder; anaemia;
KW   acquired immune deficiency syndrome; thymic hypoplasia; Crohn's disease;
KW   asthma; neurological disorder; epilepsy; Charcot-Marie-Tooth disease;
KW   AIDS; seizures; cell proliferative disorder; cancer; adenocarcinoma;
KW   leukaemia; lymphoma; melanoma; myeloma; sarcoma; developmental disorder;
KW   Down's syndrome; gene therapy; protein therapy; cytostatic; gene; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             1..3294
FT                   /*tag=  a
FT                   /product= "Human PKIN-12 protein"
FT   sig_peptide     1..51
FT                   /*tag=  b
FT   mat_peptide     52..3291
FT                   /*tag=  c
FT                   /product= "Human mature PKIN-12 protein"
XX
PN   WO200218557-A2.
XX
PD   07-MAR-2002.
XX
PF   31-AUG-2001; 2001WO-US27219.
XX
PR   31-AUG-2000; 2000US-229873P.
PR   08-SEP-2000; 2000US-231357P.
PR   14-SEP-2000; 2000US-232654P.
PR   22-SEP-2000; 2000US-234902P.
PR   29-SEP-2000; 2000US-236499P.
PR   06-OCT-2000; 2000US-238389P.
PR   13-OCT-2000; 2000US-240542P.
XX
PA   (INCY-) INCYTE GENOMICS INC.
XX
PI   Bandman O,  Nguyen DB,  Walia NK,  Hafalia AJA,  Yao MG,  Gandhi AR;
PI   Gururajan R,  Ding L,  Patterson C,  Yue H,  Baughn MR,  Tribouley CM;
PI   Thornton M,  Elliott VS,  Lu Y,  Ison CH,  Au-Young J,  Tang YT;
PI   Azimzai Y,  Burrill JD,  Marcus GA,  Zingler KA,  Lu DAM,  Lal PG;
PI   Ramkumar J,  Warren BA,  Kearney L,  Policky JL,  Thangavelu K;
PI   Burford N;
XX
DR   WPI; 2002-329769/36.
DR   P-PSDB; AAE21717.
XX
PT   New human kinases, useful for diagnosing, treating or preventing immune
PT   system disorders (e.g. Crohn's disease), neurological disorders (e.g.
PT   epilepsy), or cell proliferative disorders (e.g. cancers such as
PT   leukemia or lymphoma)  -
XX
PS   Claim 91; Page 207-208; 218pp; English.
XX
CC   The present invention relates to human kinases (PKIN) and polynucleotides
CC   encoding such proteins. PKIN sequences of the invention are useful for
CC   diagnosing, treating or preventing disorders associated with aberrant
CC   expression of PKIN, particularly immune system disorders (e.g. acquired
CC   immune deficiency syndrome (AIDS), thymic hypoplasia, Crohn's disease,
CC   anaemia, asthma), neurological disorders (e.g. epilepsy, Charcot-Marie-
CC   Tooth disease or seizures), cell proliferative disorders (e.g. cancers
CC   such as adenocarcinoma, leukaemia, lymphoma, melanoma, myeloma, sarcoma),
CC   and developmental disorders (e.g. Down's syndrome). They are also used
CC   in gene therapy and protein therapy. The present sequence is a cDNA
CC   encoding human PKIN-12 protein.
XX
SQ   Sequence 3538 BP; 763 A; 1055 C; 1062 G; 658 T; 0 other;

  Query Match             57.4%;  Score 94.2;  DB 24;  Length 3538;
  Best Local Similarity   73.6%;  Pred. No. 2.4e-21;
  Matches  120;  Conservative    0;  Mismatches   43;  Indels    0;  Gaps    0;

Qy       2 CACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACATC 61
           ||||| ||| | ||| |  | || || ||| | ||  ||||| | ||  ||| |||  |
Db     796 CACCGCGACCTTAAGTCCAGCAACATATTGATCCTCCAGAAGGTGGAGAATGGAGACCTG 855

Qy      62 TGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCACC 121
            |||| || | | ||||||| || ||||||||  ||||  ||||||||||| | ||||||
Db     856 AGCAACAAGATTCTGAAGATCACTGATTTTGGCCTGGCTCGGGAATGGCACCGAACCACC 915

Qy     122 AAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           || |||||  | ||||| || ||||| |||||||| || ||||
Db     916 AAGATGAGTGCGGCAGGGACGTATGCTTGGATGGCACCCGAAG 958


RESULT 8
AAI85458/c
ID   AAI85458 standard; cDNA; 444 BP.
XX
AC   AAI85458;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human polynucleotide SEQ ID NO 5518.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorders; arthritis; inflammation; ss.
```

```
XX
OS   Homo sapiens.
XX
PN   WO200164835-A2.
XX
PD   07-SEP-2001.
XX
PF   26-FEB-2001; 2001WO-US04927.
XX
PR   28-FEB-2000; 2000US-0515126.
PR   18-MAY-2000; 2000US-0577409.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT;
XX
DR   WPI; 2001-514838/56.
DR   P-PSDB; AAO05527.
XX
PT   Isolated nucleic acids and polypeptides, useful for preventing
PT   diagnosing and treating e.g. leukaemia, inflammation and immune
PT   disorders -
XX
PS   Claim 1; SEQ ID NO 5518; 1399pp + Sequence Listing; English.
XX
CC   The invention relates to human polynucleotides (AAI79941-AAI93841) and
CC   the encoded proteins (AAO00010-AAO13910) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation.
CC   Note: The sequence data for this patent did not form part of the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 444 BP; 110 A; 119 C; 111 G; 101 T; 3 other;

  Query Match             53.0%;  Score 87;  DB 22;  Length 444;
  Best Local Similarity   73.5%;  Pred. No. 2.7e-19;
  Matches  111;  Conservative    0;  Mismatches   40;  Indels    0;  Gaps    0;

Qy      14 AAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACATCTGCAATAAAACT 73
           ||| |  | || || ||| | ||  ||||| | ||  |||  ||| |  |||| || | |
Db     443 AAGTCCAGCAACATATTGATCCTCCAGAAGGTGGAGAATGGAGACCTGAGCAACAAGATT 384

Qy      74 TTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCACCAAAATGAGCACA 133
           ||||||| || |||||||| |||| ||||||||||| | |||||||| |||||  |
Db     383 CTGAAGATCACTGATTTTGGCCTGGCTCGGGAATGGCACCGAACCACCAAGATGAGTGCG 324

Qy     134 GCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           ||||| || ||||| |||||||| || ||||
Db     323 GCAGGGACGTATGCTTGGATGGCACCCGAAG 293


RESULT 9
ABK83874
ID   ABK83874 standard; cDNA; 3558 BP.
XX
AC   ABK83874;
XX
DT   14-AUG-2002  (first entry)
XX
DE   Human cDNA differentially expressed in granulocytic cells #445.
XX
KW   Human; ss; granulocytic cell; DNA chip; bacterial infection;
KW   viral infection; parasitic infection; protozoal infection;
KW   fungal infection; sterile inflammatory disease; psoriasis;
KW   rheumatoid arthritis; glomerulonephritis; asthma; thrombosis;
KW   cardiac reperfusion injury; renal reperfusion injury; ARDS;
KW   adult respiratory distress syndrome; inflammatory bowel disease;
KW   Crohn's disease; ulcerative colitis; periodontal disease;
KW   granulocyte activation; chronic inflammation; allergy.
XX
OS   Homo sapiens.
XX
PN   WO200228999-A2.
XX
PD   11-APR-2002.
XX
PF   03-OCT-2001; 2001WO-US30821.
XX
PR   03-OCT-2000; 2000US-237189P.
XX
PA   (GENE-) GENE LOGIC INC.
XX
PI   Beazer-Barclay Y,  Weissman SM,  Yamaga S,  Vockley J;
XX
DR   WPI; 2002-435328/46.
XX
PT   Detecting granulocyte activation by detecting differential expression
PT   of genes associated with granulocyte activation, which serves as
PT   diagnostic markers that is useful for monitoring disease states and
PT   drug toxicity  -
XX
PS   Claim 1; SEQ ID No 445; 114pp; English.
XX
CC   The invention relates to detecting (M1) granulocyte (GC) activation
CC   (GCA), by detecting the level of expression of gene(s) (Gs) identified by
CC   DNA chip analysis as given in the specification, and comparing
CC   the expression level to an expression level in an unactivated
CC   GC, where differential expression of Gs is indicative of GCA.
CC   Also included are modulating (M2) GA by contacting GC with an agent
CC   that alters the expression of at least one gene in Gs; (2) screening (M3)
CC   for an agent capable of modulating GCA or an inflammation (especially
CC   chronic) in a tissue, an allergic response in a subject, exposure of a
CC   subject to a pathogen or sterile inflammatory disease using the
CC   gene expression profile; (3) detecting (M4) an inflammation (especially
CC   chronic) in a tissue, an allergic response in a subject, exposure of a
CC   subject to a pathogen or sterile inflammatory disease, by detecting the
CC   level of expression in a sample of the tissue of gene(s) from Gs, where
CC   the level of expression of the gene is indicative of inflammation;
CC   (4) treating (M5) an inflammation (especially chronic) or in a tissue,
CC   an allergic response in a subject, exposure of a subject to a pathogen
CC   or sterile inflammatory disease, by contacting a tissue having
CC   inflammation with an agent that modulates the expression of gene(s)
CC   from Gs in the tissue. M1 is useful for detecting GCA; M2 is useful for
CC   modulating GA; M3 is useful for screening an agent capable of modulating
CC   GCA preferably in an inflammation in a tissue; M4 is useful for
CC   detecting an inflammation (especially chronic) in a tissue, an allergic
CC   response in a subject, exposure of a subject to a pathogen or sterile
CC   inflammatory disease (e.g. psoriasis, rheumatoid arthritis,
CC   glomerulonephritis, asthma, thrombosis, cardiac reperfusion injury, renal
CC   reperfusion injury, ARDS, adult respiratory distress syndrome,
CC   inflammatory bowel disease, Crohn's disease, ulcerative colitis,
CC   periodontal disease; also bacterial infection, viral infection,
CC   parasitic infection, protozoal infection, fungal infection and M5 is
CC   useful for treating one of the above conditions. The present
CC   sequence represents a gene differentially expressed in granulocytes.
CC   Note: The sequence data for this patent did not form part
CC   of the printed specification, but was obtained in electronic
CC   format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence 3558 BP; 635 A; 1211 C; 1161 G; 551 T; 0 other;

  Query Match             50.6%;  Score 83;  DB 24;  Length 3558;
  Best Local Similarity   69.3%;  Pred. No. 1.4e-17;
  Matches  113;  Conservative    0;  Mismatches   50;  Indels    0;  Gaps    0;

Qy       2 CACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACATC 61
           ||||| ||  ||||| |    || |||||||| ||  ||   || ||   ||| |||||
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```
Db   1196 CACCGTGATCTCAAGTCCAACAACATTTTGCTGCTGCAGCCCATTGAGAGTGACGACATG 1255

Qy     62 TGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCACC 121
          | || ||  ||||||| || || |||||  ||||  | || |||||||  |||||
Db   1256 GAGCACAAGACCCTGAAGATCACCGACTTTGGCCTGGCCCGAGAGTGGCACAAAACCACA 1315

Qy    122 AAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           |||||||  | || |||||||| |||||||||||| || || |
Db   1316 CAAATGAGTGCCGCGGGCACCTACGCCTGGATGGCTCCTGAGG 1358


RESULT 10
AAD36139
ID   AAD36139 standard; DNA; 3558 BP.
XX
AC   AAD36139;
XX
DT   09-AUG-2002  (first entry)
XX
DE   Human mitogen activated protein kinase, MAP3K11 gene.
XX
KW   Human; cytostatic; antisense gene therapy; screening; protein kinase;
KW   cancer; liver; colon; tumour; inflammation; arthritic synovium; MAP3K11;
KW   mitogen activated protein kinase; enzyme; gene; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   CDS             482..3025
FT                   /*tag= a
FT                   /product= "Human MAP3K11 protein"
XX
PN   WO200224947-A2.
XX
PD   28-MAR-2002.
XX
PF   20-SEP-2001; 2001WO-IB02237.
XX
PR   20-SEP-2000; 2000US-233999P.
PR   02-OCT-2000; 2000US-237419P.
PR   02-OCT-2000; 2000US-237423P.
PR   04-OCT-2000; 2000US-238558P.
PR   10-MAY-2001; 2001US-290555P.
XX
PA   (KINE-) KINETEK PHARM INC.
PA   (UYBR-) UNIV BRITISH COLUMBIA.
XX
PI   Yoganathan T,  Delaney AD;
XX
DR   WPI; 2002-394145/42.
DR   P-PSDB; AAE22763.
XX
PT   Diagnosing cancer, comprises determining the upregulation of expression
PT   of a nucleic acid sequence encoding a protein kinase or upregulation of
PT   expression of the protein kinase, in the cancer
XX
PS   Claim 16; Page 56-60; 87pp; English.
XX
CC   The invention relates to a method for screening biologically active agent
CC   that modulates cancer associated protein kinase function. The invention
CC   also relates to a method for diagnosing cancer comprising determining the
CC   upregulation of expression of a nucleic acid sequence encoding a protein
CC   kinase. The method is useful for diagnosing cancer. A protein kinase is
CC   useful for screening biological agents that modulate cancer associated
CC   protein kinase function. Downregulating the activity of protein kinase is
CC   useful for inhibiting the growth of a cancer cell, e.g. liver or colon
CC   cancer. A nucleic acid encoding protein kinase is useful to screen biopsy
CC   derived tumours and inflammatory samples such as arthritic synovium, for
CC   amplified DNA in the cell or increased expression of corresponding mRNA
CC   or protein and is also useful to detect differences in expression levels
CC   such as molecular weight, amino acid and nucleotide sequences between the
CC   two cells. The present sequence is human mitogen activated protein kinase
CC   MAP3K11 gene.
XX
SQ   Sequence 3558 BP; 635 A; 1211 C; 1161 G; 551 T; 0 other;

  Query Match           50.6%;  Score 83;  DB 24;  Length 3558;
  Best Local Similarity  69.3%;  Pred. No. 1.4e-17;
  Matches  113;  Conservative    0;  Mismatches   50;  Indels    0;  Gaps    0;

Qy      2 CACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACATC 61
          ||||| ||  ||||| |    || |||||||| ||  ||   || ||   ||| |||||
Db   1196 CACCGTGATCTCAAGTCCAACAACATTTTGCTGCTGCAGCCCATTGAGAGTGACGACATG 1255

Qy     62 TGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCACC 121
          | || ||  ||||||| || || |||||  ||||  | || |||||||  |||||
Db   1256 GAGCACAAGACCCTGAAGATCACCGACTTTGGCCTGGCCCGAGAGTGGCACAAAACCACA 1315

Qy    122 AAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           |||||||  | || |||||||| |||||||||||| || || |
Db   1316 CAAATGAGTGCCGCGGGCACCTACGCCTGGATGGCTCCTGAGG 1358


RESULT 11
ABL70018
ID   ABL70018 standard; DNA; 3454 BP.
XX
AC   ABL70018;
XX
DT   15-MAY-2002  (first entry)
XX
DE   Pancreas cancer related gene sequence SEQ ID NO:8355.
XX
KW   Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid;
KW   stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous;
KW   cytostatic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;
KW   gene; ds.
XX
OS   Homo sapiens.
XX
PN   WO200194629-A2.
XX
PD   13-DEC-2001.
XX
PF   30-MAY-2001; 2001WO-US10838.
XX
PR   05-JUN-2000; 2000US-209473P.
PR   05-JUN-2000; 2000US-209531P.
PR   18-SEP-2000; 2000US-233133P.
PR   18-SEP-2000; 2000US-233617P.
PR   20-SEP-2000; 2000US-234009P.
PR   20-SEP-2000; 2000US-234034P.
PR   20-SEP-2000; 2000US-234052P.
PR   22-SEP-2000; 2000US-234509P.
PR   22-SEP-2000; 2000US-234567P.
PR   25-SEP-2000; 2000US-234923P.
PR   25-SEP-2000; 2000US-234924P.
PR   25-SEP-2000; 2000US-235077P.
PR   25-SEP-2000; 2000US-235082P.
PR   25-SEP-2000; 2000US-235134P.
PR   25-SEP-2000; 2000US-235280P.
PR   26-SEP-2000; 2000US-235637P.
PR   26-SEP-2000; 2000US-235638P.
PR   27-SEP-2000; 2000US-235711P.
PR   27-SEP-2000; 2000US-235720P.
PR   27-SEP-2000; 2000US-235840P.
PR   27-SEP-2000; 2000US-235863P.
PR   28-SEP-2000; 2000US-236028P.
PR   28-SEP-2000; 2000US-236032P.
PR   28-SEP-2000; 2000US-236033P.
PR   28-SEP-2000; 2000US-236034P.
PR   28-SEP-2000; 2000US-236109P.
PR   28-SEP-2000; 2000US-236111P.
PR   29-SEP-2000; 2000US-236842P.
PR   29-SEP-2000; 2000US-236891P.
PR   02-OCT-2000; 2000US-237172P.
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PR   02-OCT-2000; 2000US-237173P.
PR   02-OCT-2000; 2000US-237278P.
PR   02-OCT-2000; 2000US-237294P.
PR   02-OCT-2000; 2000US-237295P.
PR   02-OCT-2000; 2000US-237316P.
PR   03-OCT-2000; 2000US-237425P.
PR   03-OCT-2000; 2000US-237598P.
PR   03-OCT-2000; 2000US-237604P.
PR   03-OCT-2000; 2000US-237606P.
PR   03-OCT-2000; 2000US-237608P.
PR   01-NOV-2000; 2000US-244867P.
PR   01-NOV-2000; 2000US-245084P.
XX
PA   (AVAL-) AVALON PHARM.
XX
PI   Young PE,  Augustus M,  Carter KC,  Ebner R,  Endress G,  Horrigan S;
PI   Soppet DR,  Weaver Z;
XX
DR   WPI; 2002-188264/24.
XX
PT   Screening for anti-neoplastic agent involves exposing cells to a
PT   chemical agent to be tested for anti-neoplastic activity, and
PT   determining a change in expression of a gene of a signature gene set  -
XX
PS   Claim 1; SEQ ID 8355; 44pp; English.
XX
CC   The present invention describes a method (M1) for screening for an
CC   anti-neoplastic agent. The method involves exposing cells to a chemical
CC   agent to be tested for anti-neoplastic activity, determining a change in
CC   expression of at least one gene (I) of a signature gene set, where (I)
CC   comprises a sequence (S) selected from 8447 sequences (given in ABL61664
CC   to ABL70110), or is at least 95% identical to (S), where a change in
CC   expression is indicative of anti-neoplastic activity. (I) has cytostatic
CC   activity and can be used in gene therapy. M1 can be used for screening
CC   an anti-neoplastic agent, and can be used for producing a product which
CC   is the data collected with respect to the anti-neoplastic agent as a
CC   result of M1, and the data is sufficient to convey the chemical
CC   structure and/or properties of the agent. M1 can be used in the
CC   treatment of cancer such as colon, breast, stomach, lung, thyroid,
CC   oesophageal, ovarian, kidney, prostate or pancreatic cancer,
CC   adenocarcinoma, carcinoma, clear cell cancer, infiltrating ductal cancer,
CC   infiltrating lobular cancer, squamous cell carcinoma, neuroendocrine
CC   carcinoma, papillary carcinoma and Wilm's tumour.
XX
SQ   Sequence 3454 BP; 594 A; 1217 C; 1136 G; 507 T; 0 other;

  Query Match             44.8%;  Score 73.4;  DB 24;  Length 3454;
  Best Local Similarity   65.6%;  Pred. No. 2.5e-14;
  Matches  107;  Conservative    0;  Mismatches   56;  Indels    0;  Gaps    0;

Qy       2 CACCGGGACATCAAGGCAGGAAATATTTTGCTACTTGAGAAGATAGAACATGATGACATC 61
           ||||||||| ||||| |    || ||  || | || |||   || ||  |  |  || ||
Db     946 CACCGGGACCTCAAGTCCATCAACATCCTGATCCTGGAGGCCATCGAGAACCACAACCTC 1005

Qy      62 TGCAATAAAACTTTGAAGATTACAGATTTTGGGTTGGCGAGGGAATGGCACAGGACCACC 121
             | |       | ||||| || || ||. ||   | ||   | || ||||||| |||||||
Db    1006 GCAGACACGGTGCTCAAGATCACGGACTTCGGCCTCGCCCGCGAGTGGCACAAGACCACC 1065

Qy     122 AAAATGAGCACAGCAGGCACCTATGCCTGGATGGCCCCAGAAG 164
           || |||||| | || || ||||| ||||||||||| || || |
Db    1066 AAGATGAGCGCTGCGGGGACCTACGCCTGGATGGCGCCGGAGG 1108


RESULT 12
ABA17177
ID   ABA17177 standard; DNA; 7084 BP.
XX
AC   ABA17177;
XX
DT   23-JAN-2002  (first entry)
XX
DE   Human nervous system related polynucleotide SEQ ID NO 9508.
XX
KW   Human; nootropic; neuroprotective; cytostatic; dermatological; virucide;
KW   immunosuppressive; antiinflammatory; anti-HIV; antibacterial; vulnerary;
KW   antiparkinsonian; antisickling; antianaemic; antiarthritic; cancer;
KW   antirheumatic; hepatotropic; cerebroprotective; antiinflammatory;
KW   antiallergic; antidiabetic; antiulcer; anticonvulsant; antifungal;
KW   antiparasitic; cardiant; immune disorder; cardiovascular disorder;
KW   neurological disease; infection; nephrotropic; gene therapy; vaccine; ds.
XX
OS   Homo sapiens.
XX
PN   WO200159063-A2.
XX
PD   16-AUG-2001.
XX
PF   17-JAN-2001; 2001WO-US01334.
XX
PR   31-JAN-2000; 2000US-0179065.
PR   04-FEB-2000; 2000US-0180628.
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PR   02-MAR-2000; 2000US-0186350.
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PR   18-APR-2000; 2000US-0198123.
PR   19-MAY-2000; 2000US-0205515.
PR   07-JUN-2000; 2000US-0209467.
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PR   07-JUL-2000; 2000US-0216647.
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PR   14-AUG-2000; 2000US-0225267.
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PR   05-SEP-2000; 2000US-0229509.
PR   05-SEP-2000; 2000US-0229513.
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PR   08-SEP-2000; 2000US-0231414.
PR   08-SEP-2000; 2000US-0232080.
PR   08-SEP-2000; 2000US-0232081.
PR   12-SEP-2000; 2000US-0231968.
PR   14-SEP-2000; 2000US-0232397.
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PR   14-SEP-2000; 2000US-0232399.
PR   14-SEP-2000; 2000US-0232400.
PR   14-SEP-2000; 2000US-0232401.
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PR 14-SEP-2000; 2000US-0233063.
PR 14-SEP-2000; 2000US-0233064.
PR 14-SEP-2000; 2000US-0233065.
PR 21-SEP-2000; 2000US-0234223.
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PR 25-SEP-2000; 2000US-0234997.
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PR 26-SEP-2000; 2000US-0235484.
PR 27-SEP-2000; 2000US-0235834.
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PR 13-OCT-2000; 2000US-0239935.
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PR 20-OCT-2000; 2000US-0241809.
PR 20-OCT-2000; 2000US-0241826.
PR 20-OCT-2000; 2000US-0242221.
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PR 08-NOV-2000; 2000US-0246528.
PR 08-NOV-2000; 2000US-0246532.
PR 08-NOV-2000; 2000US-0246609.
PR 08-NOV-2000; 2000US-0246610.
PR 08-NOV-2000; 2000US-0246611.
PR 08-NOV-2000; 2000US-0246613.
PR 17-NOV-2000; 2000US-0249207.
PR 17-NOV-2000; 2000US-0249208.
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PR 17-NOV-2000; 2000US-0249210.
PR 17-NOV-2000; 2000US-0249211.
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PR 17-NOV-2000; 2000US-0249213.
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PR 17-NOV-2000; 2000US-0249215.
PR 17-NOV-2000; 2000US-0249216.
PR 17-NOV-2000; 2000US-0249217.
PR 17-NOV-2000; 2000US-0249218.
PR 17-NOV-2000; 2000US-0249244.
PR 17-NOV-2000; 2000US-0249245.
PR 17-NOV-2000; 2000US-0249264.
PR 17-NOV-2000; 2000US-0249265.
PR 17-NOV-2000; 2000US-0249297.
PR 17-NOV-2000; 2000US-0249299.
PR 17-NOV-2000; 2000US-0249300.
PR 01-DEC-2000; 2000US-0250391.
PR 01-DEC-2000; 2000US-0251160.
PR 05-DEC-2000; 2000US-0251030.
PR 05-DEC-2000; 2000US-0251988.
PR 05-DEC-2000; 2000US-0256719.
PR 06-DEC-2000; 2000US-0251479.
PR 08-DEC-2000; 2000US-0251856.
PR 08-DEC-2000; 2000US-0251868.
PR 08-DEC-2000; 2000US-0251869.
PR 08-DEC-2000; 2000US-0251989.
PR 08-DEC-2000; 2000US-0251990.
PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX
DR WPI; 2001-541565/60.
XX
PT Nucleic acids encoding 3224 human nervous system antigen polypeptides,
PT useful for preventing, diagnosing and/or treating nervous system
PT cancers and metastases -
XX
PS Disclosure; SEQ ID NO 9508; 1701pp + Sequence Listing; English.
XX
CC The invention relates to novel genes (ABA11004-ABA21534) and proteins
CC (ABB14678-ABB18001) useful for preventing, treating or ameliorating
CC medical conditions e.g. by protein or gene therapy. The genes are
CC isolated from a range of human tissues disclosed in the specification.
CC The nucleic acids, proteins, antibodies and (ant)agonists are useful
CC in the diagnosis, treatment and prevention of: (a) cancer, e.g. breast
CC and ovarian cancer and other cancers of the adrenal gland, bone, bone
CC marrow, breast, gastrointestinal tract, liver, lung, or urogenital;
CC (b) immune disorders e.g. Addison's disease, allergies, autoimmune
CC haemolytic anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's
CC disease, multiple sclerosis, rheumatoid arthritis and ulcerative
CC colitis; (c) cardiovascular disorders such as myocardial ischaemias;
CC (d) wound healing; (e) neurological diseases e.g. cerebral anoxia and
CC epilepsy; and (f) infectious diseases such as viral, bacterial, fungal
CC and parasitic infections.
CC Note: The sequence data for this patent did not form part of the
CC printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ Sequence 7084 BP; 1519 A; 1987 C; 2073 G; 1505 T; 0 other;

Query Match 44.1%; Score 72.4; DB 22; Length 7084;
Best Local Similarity 70.3%; Pred. No. 7.3e-14;
Matches 97; Conservative 0; Mismatches 41; Indels 0; Gaps 0;

Qy 27 TTTTGCTACTTGAGAAGATAGAACATGATGACATCTGCAATAAAACTTTGAAGATTACAG 86
Db 4670 TTTTGCTGCTGCAGCCCATTGAGAGTGACGACATGGAGCACAAGACCCTGAAGATCACCG 4729

Qy 87 ATTTTGGGTTGGCGAGGGAATGGCACAGGACCACCAAAATGAGCACAGCAGGCACCTATG 146
Db 4730 ACTTTGGCCTGGCCCGAGAGTGGCACAAAACCACACAAATGAGTGCCGCGGGCACCTACG 4789

Qy 147 CCTGGATGGCCCCAGAAG 164
Db 4790 CCTGGATGGCTCCTGAGG 4807

RESULT 13
AAK73916
ID AAK73916 standard; DNA; 7084 BP.
XX
AC AAK73916;
XX
DT 07-NOV-2001 (first entry)
XX
DE Human immune/haematopoietic antigen genomic sequence SEQ ID NO:28728.
XX
KW Human; immune; haematopoietic; immune/haematopoietic antigen; cancer;
KW cytostatic; gene therapy; vaccine; metastasis; ds.
XX
OS Homo sapiens.
XX
PN WO200157182-A2.

XX
PD 09-AUG-2001.
XX
PF 17-JAN-2001; 2001WO-US01354.
XX
PR 31-JAN-2000; 2000US-0179065.
PR 04-FEB-2000; 2000US-0180628.
PR 24-FEB-2000; 2000US-0184664.
PR 02-MAR-2000; 2000US-0186350.
PR 16-MAR-2000; 2000US-0189874.
PR 17-MAR-2000; 2000US-0190076.
PR 18-APR-2000; 2000US-0198123.
PR 19-MAY-2000; 2000US-0205515.
PR 07-JUN-2000; 2000US-0209467.
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PR 26-SEP-2000; 2000US-0235484.
PR 27-SEP-2000; 2000US-0235834.
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PR 08-DEC-2000; 2000US-0251990.
PR 11-DEC-2000; 2000US-0254097.
PR 05-JAN-2001; 2001US-0259678.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Rosen CA, Barash SC, Ruben SM;
XX

```
DR   WPI; 2001-483426/52.
XX
PT   Nucleic acids encoding human immune/hematopoietic antigen polypeptides,
PT   useful for preventing, diagnosing and/or treating cancers and
PT   metastasis -
XX
PS   Disclosure; SEQ ID NO 28728; 3071pp + Sequence Listing; English.
XX
CC   AAK54951 to AAK64702 encode the human immune/haematopoietic antigen (I)
CC   amino acid sequences given in AAM82170 to AAM91921. (I) have cytostatic
CC   activity, and can be used in gene therapy and vaccine production. (I)
CC   proteins and polynucleotides may be used in the prevention, diagnosis and
CC   treatment of diseases associated with inappropriate (I) expression. For
CC   example, they may be used to treat disorders associated with decreased
CC   expression by rectifying mutations or deletions in a patient's genome
CC   that affect the activity of (I) by expressing inactive proteins or to
CC   supplement the patients own production of (I). Additionally, (I)
CC   polynucleotides may be used to produce the secreted (I), by inserting
CC   the nucleic acids into a host cell and culturing the cell to express the
CC   protein. (I) proteins and polynucleotides may be used to prevent,
CC   diagnose and treat immune/haematopoietic-related diseases, especially
CC   cancers and cancer metastases of haematopoietic-derived cells. AAK64703
CC   to AAK87694 represent human immune/haematopoietic antigen genomic
CC   sequences from the present invention. AAK54942 to AAK54950 and AAM82169
CC   represent sequences used in the exemplification of the present invention.
XX
SQ   Sequence 7084 BP; 1519 A; 1987 C; 2073 G; 1505 T; 0 other;

  Query Match             44.1%;  Score 72.4;  DB 22;  Length 7084;
  Best Local Similarity   70.3%;  Pred. No. 7.3e-14;
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Qy      27 TTTTGCTACTTGAGAAGATAGAACATGATGACATCTGCAATAAAACTTTGAAGATTACAG 86
           ||||||| ||  ||   || ||   ||| |||||     | || ||  ||||||| || |
Db    4670 TTTTGCTGCTGCAGCCCATTGAGAGTGACGACATGGAGCACAAGACCCTGAAGATCACCG 4729

Qy      87 ATTTTGGGTTGGCGAGGGAATGGCACAGGACCACCAAAATGAGCACAGCAGGCACCTATG 146
           | |||||  ||||  | || |||||||  |||||  |||||||  | || ||||||||  |
Db    4730 ACTTTGGCCTGGCCCGAGAGTGGCACAAAACCACACAAATGAGTGCCGCGGGCACCTACG 4789

Qy     147 CCTGGATGGCCCCCAGAAG 164
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Db    4790 CCTGGATGGCTCCTGAGG 4807


RESULT 14
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ID   AAQ49755 standard; DNA; 404 BP.
XX
AC   AAQ49755;
XX
DT   10-MAR-1994  (first entry)
XX
DE   pTK gene LpTK4 partial sequence.
XX
KW   pTK; protein tyrosine kinase; catalytic domain; c-kit; megakaryocyte;
KW   lymphocyte; amplification; primer; polymerase chain reaction; PCR; ds.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_difference 212
FT                   /*tag=  a
FT                   /note= "base labelled as X in the specification"
FT   misc_difference 222
FT                   /*tag=  b
FT                   /note= "base labelled as X in the specification"
FT   misc_difference 321
FT                   /*tag=  c
FT                   /note= "base labelled as X in the specification"
XX
PN   WO9315201-A.
XX
PD   05-AUG-1993.
XX
PF   22-JAN-1993;   93WO-US00586.
XX
PR   22-JAN-1992;   92US-0826935.
XX
PA   (NEWE-) NEW ENGLAND DEACONESS HOSPITAL.
XX
PI   Avraham H,  Cowley S,  Groopman J,  Scadden D;
XX
DR   WPI; 1993-320330/40.
XX
PT   New protein tyrosine kinase genes and proteins encoded by genes -
PT   are of human mega-karyocytic origin
XX
PS   Claim 2; Fig 6; 60pp; English.
XX
CC   pTK genes were identified using two sets of degenerative
CC   oligonucleotide primers: a first set which amplifies all pTK DNA
CC   segments (AAQ49743-44), and a second set which amplifies highly
CC   conserved sequences present in the catalytic domain of the c-kit
CC   subgroup of pTKs (AAQ49745-46). The pTK genes identified are described
CC   in AAQ49747-57 and AAR41897-02.
CC   The LpTKs are expressed in lymphocytic cells, as well as
CC   megakaryocytic cells.  Sequencing of LpTK-4 revealed the sequences
CC   given in AAQ49751 and AAQ49755.  The protein sequence corresp. to
CC   AAQ49751 is claimed (claim 7) and stated as given in the specification,
CC   however is missing from the publication.
XX
SQ   Sequence 404 BP; 95 A; 106 C; 123 G; 77 T; 3 other;

  Query Match             43.9%;  Score 72;  DB 14;  Length 404;
  Best Local Similarity   69.6%;  Pred. No. 2.9e-14;
  Matches   96;  Conservative    0;  Mismatches   42;  Indels    0;  Gaps    0;

Qy      27 TTTTGCTACTTGAGAAGATAGAACATGATGACATCTGCAATAAAACTTTGAAGATTACAG 86
           ||||||| ||  ||   || ||   ||| |||||     | || ||  ||||||| || |
Db     103 TTTTGCTGCTGCAGCCCATTGAGAGTGACGACATGGAGCACAAGACCCTGAAGATCACCG 162

Qy      87 ATTTTGGGTTGGCGAGGGAATGGCACAGGACCACCAAAATGAGCACAGCAGGCACCTATG 146
           | |||||  ||||  | || |||||||  |||||  |||||||  | || ||||||||  |
Db     163 ACTTTGGCCTGGCCCGAGAGTGGCACAAAACCACACAAATGAGTGCCGCNGGCACCTACN 222

Qy     147 CCTGGATGGCCCCCAGAAG 164
           |||||||||| || || |
Db     223 CCTGGATGGCTCCTGAGG 240


RESULT 15
AAT03098
ID   AAT03098 standard; DNA; 404 BP.
XX
AC   AAT03098;
XX
DT   14-FEB-1996  (first entry)
XX
DE   Protein tyrosine-kinase LpTK4 DNA fragment.
XX
KW   Protein tyrosine-kinase; pTK; LpTK4; agonist; cell growth;
KW   differentiation; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   misc_difference 212
FT                   /*tag=  a
FT                   /note= "base n at position 212 is not identified
FT                          in the specification"
FT   misc_difference 222
FT                   /*tag=  b
FT                   /note= "base n at position 222 is not identified
FT                          in the specification"
FT   misc_difference 321
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FT                  /*tag=  c
FT                  /note= "base n at position 321 is not identified
FT                         in the specification"
XX
PN   WO9527061-A1.
XX
PD   12-OCT-1995.
XX
PF   04-APR-1995;   95WO-US04228.
XX
PR   04-APR-1994;   94US-0222616.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Bennett BD,  Goeddel D,  Lee JM,  Matthews W,  Tsai SP;
PI   Wood WI;
XX
DR   WPI; 1995-366160/47.
XX
PT   Agonist antibodies which activate specific protein tyrosine
PT   kinase(s)  - also activate chimeric proteins of kinase extracellular
PT   domain and Ig constant domain, useful for studying, and therapeutic
PT   modulation of, cell growth and differentiation
XX
PS   Disclosure; Page 58-59; 125pp; English.
XX
CC   DNA probes based on protein tyrosine-kinase (pTK) sequences were used
CC   to screen cDNA libraries to identify novel pTK genes.  A LpTK4 gene
CC   partial sequence (AAT03098) was isolated from a lymphocytic cell
CC   library.  The partial sequence can be used to identify other new
CC   pTK genes, or to design drugs, peptides or antisense constructs
CC   that modulate pTK activity.
XX
SQ   Sequence 404 BP; 95 A; 106 C; 123 G; 77 T; 3 other;

  Query Match             43.9%;  Score 72;  DB 16;  Length 404;
  Best Local Similarity   69.6%;  Pred. No. 2.9e-14;
  Matches   96;  Conservative    0;  Mismatches   42;  Indels    0;  Gaps    0;

Qy      27 TTTTGCTACTTGAGAAGATAGAACATGATGACATCTGCAATAAAACTTTGAAGATTACAG 86
           ||||||| ||  ||   || ||   ||| |||||     | || ||  ||||||| || |
Db     103 TTTTGCTGCTGCAGCCCATTGAGAGTGACGACATGGAGCACAAGACCCTGAAGATCACCG 162

Qy      87 ATTTTGGGTTGGCGAGGGAATGGCACAGGACCACCAAAATGAGCACAGCAGGCACCTATG 146
           | |||||  ||||  | || |||||||  |||||  |||||||  | || ||||||||
Db     163 ACTTTGGCCTGGCCCGAGAGTGGCACAAAACCACACAAATGAGTGCCGCNGGCACCTACN 222

Qy     147 CCTGGATGGCCCCAGAAG 164
           |||||||||| || || |
Db     223 CCTGGATGGCTCCTGAGG 240


Search completed: December 13, 2002, 20:58:37
Job time : 285 secs
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